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STAAS &	HALSE	Y LLP	AGUSTIN, PETER VINCENT		
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WASHING			2627		
				DATE MAILED: 06/23/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

·		Application No.	Applicant(s)				
		09/976,277	EOM ET AL.				
	Office Action Summary	Examiner	Art Unit				
		P. Agustin	2627				
Period fo	The MAILING DATE of this communication app or Reply	ears on the cover sheet with the c	orrespondence address				
WHIC - Exter after - If NC - Failu Any	ORTENED STATUTORY PERIOD FOR REPLY CHEVER IS LONGER, FROM THE MAILING DANSIONS OF THE MAILING THE MAIL	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tin vill apply and will expire SIX (6) MONTHS from , cause the application to become ABANDONE	N. nely filed the mailing date of this communication. D (35 U.S.C. § 133).				
Status							
1)	Responsive to communication(s) filed on 18 Ja	anuary 2006 and 08 February 200	06				
	Responsive to communication(s) filed on <u>18 January 2006 and 08 February 2006</u> . This action is FINAL. 2b) This action is non-final.						
′=	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is						
-,	closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.						
Dispositi	ion of Claims						
4)⊠	Claim(s) 1,3-5,8-18 and 22 is/are pending in th	e application					
•	4a) Of the above claim(s) is/are withdrawn from consideration.						
	5) Claim(s) is/are allowed.						
· · · _	5)⊠ Claim(s) <u>1,3-5,8-18 and 22</u> is/are rejected.						
7)	_						
8)[Claim(s) are subject to restriction and/o	r election requirement.					
Applicati	ion Papers						
9) 🗌	The specification is objected to by the Examine	r.					
•	10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.						
	Applicant may not request that any objection to the	drawing(s) be held in abeyance. See	e 37 CFR 1.85(a).				
	Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.							
Priority (under 35 U.S.C. § 119						
-	12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of:						
	1. Certified copies of the priority document		ion No				
	2. Certified copies of the priority document3. Copies of the certified copies of the priority						
	application from the International Bureau	•	od in this National Stage				
* See the attached detailed Office action for a list of the certified copies not received.							
Attachmen	t(c)						
_	e of References Cited (PTO-892)	4) 🔲 Interview Summary	(PTO-413)				
2) Notic	e of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail D	ate				
	mation Disclosure Statement(s) (PTO-1449 or PTO/SB/08) or No(s)/Mail Date	5) Notice of Informal F	Patent Application (PTO-152)				
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DETAILED ACTION

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1. Claims 1, 3-5, 8-18 & 22 are now pending.

2. The indicated allowability of the pending claims is withdrawn in view of the following new grounds of rejection.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on January 18, 2006 has been entered.

Information Disclosure Statement

4. The information disclosure statement (IDS) submitted on February 8, 2006 is being considered by the examiner.

Claim Objections

5. Claims 10 & 12-18 are objected to because of the following informalities:

Claim 10, line 2: "said data type identification information area" should be --said data identification area--.

Claim 12, line 2: "sector format type information" should be --sector format type field--.

Claim 13, line 2: "tracking method information" should be --tracking method field--.

Claim 14, line 2: "reflectance information" should be --reflectance field--.

Claim 15: "reserve information" should be --reserve field--.

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Claim 16, lines 1-2: "area type information" should be --area type field--.

Claim 17, lines 1-2: "data type information" should be --data type field--.

Claim 18, lines 1-2: "layer number information" should be --number-of-layers field--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1, 3-5, 8-18 & 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, lines 4 & 5 recite the limitation "the sector", which is indefinite because it is unclear to which sector the limitation refers. Note that claim 1, line 1 recites "sectors", while claim 1, line 3 recites "each sector".

Claim 10, line 2 recites the limitation "said data type identification information area", which lacks antecedent basis. The Examiner suggests replacing this limitation with --said data identification area--.

Claims 8 & 22 have similar indefinite limitations as those of claim 1.

Claims 3-5 & 9-18 are dependent upon rejected base claims.

8. In light of the 112-2nd paragraph rejections above, the following rejections are made by the examiner using different interpretations.

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Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1, 3-5, 8, 9 & 22 are rejected under 35 U.S.C. 102(b) as being anticipated by the admitted prior art.

In regard to claim 1, the admitted prior art discloses a recording medium having sectors where data is recorded (Figures 1A-1C), wherein: each sector has a data identification area, in which information identifying the type of data recorded in the sector (interpreted as the next sector) is recorded, and the data identification area indicates whether the data recorded in the sector (interpreted as the next sector) is linking data; and each sector has a main data area, and dummy data is recorded in the main area of the sector in which the information recorded in the data identification area indicates that the recorded data is linking data (see paragraph 0005, last four lines).

In regard to claim 3, the admitted prior art discloses that 0 kilobytes (KB) are assigned to a dummy data area of the sector by linking after 32 kilobytes (KB) area assigned to a dummy data area of the sector by linking (Figure 1C).

In regard to claim 4, the admitted prior art discloses that 2 KB are assigned to a dummy data area of the sector by linking (Figure 1A).

In regard to claim 5, the admitted prior art discloses that 32 KB are assigned to a dummy data area of the sector by linking (Figure 1B).

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In regard to claim 8, the admitted prior art discloses an apparatus linking data in a process recording and/or reproducing optical data, the apparatus comprising: a checking unit (understood from paragraph 0005, last four lines) checking and outputting the type of data if no error occurs in an error correction code block having a plurality of sectors, each sector having data type identification information which indicates whether data recorded in the sector (see Figures 1A-1C) is linking data; and a replacing unit replacing main data of at least one of the plurality of sectors with predetermined data according to the data type output from the checking unit (understood from paragraph 0005, last four lines).

In regard to claim 9, the admitted prior art discloses that if the linking data is recorded in the sector, the replacing unit replaces the main data of the sector with dummy data (last four lines of paragraph 0005).

Claim 22 has limitations similar to those of claims 1 & 8; thus, it is rejected on the same basis.

Claim Rejections - 35 USC § 103

- 11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 12. Claims 10-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Lee et al. (EP 1067545 A2).

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Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

For a description of the admitted prior art, see the rejection above. However, the admitted prior art does not disclose: in regard to claim 10, that said data type identification information area comprises a sector information field and a sector number field; in regard to claim 11, that said sector information field comprises a sector format type field, a tracking method field, a reflectance field, a reserve field, an area type field, a data type field and a number-of-layers field; in regard to claim 12, that the sector format type information indicates a constant linear velocity (CLV) or zone constant linear velocity (ZCLV) as follows: a first type of bit indicates CLV format type; and a second type of bit indicates ZCLV format type, specified for rewritable discs; in regard to claim 13, that the tracking method information indicates pit tracking or groove tracking as follows: a first type of bit indicates pit tracking; and a second type of bit indicates groove tracking, specified for rewritable discs; in regard to claim 14, that the reflectance information indicates whether or not reflectance exceeds 40% as follows: a first type of bit indicates reflectance is greater than 40%; and a second type of bit indicates reflectance is less than or equal to 40%; in regard to claim 15, that the reserve information indicates a reserve bit; in regard to claim 16, that the area type information indicates a data area, a lead-in area, a leadout area, or a middle area for a read-only disc as follows: 00b indicates data area; 01b indicates lead-in area; 10b indicates lead-out area; and 11b indicates a middle area of a read-only disc; in regard to claim 17, that the data type information indicates read-only area, or the linking data as follows: a first type of bit indicates a read-only area; and a second type of bit indicates a linking

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area; and in regard to claim 18, that the layer number information indicates the number of layers in a single layer disc or a dual layer disc as follows: a first type of bit indicates layer 0 of a dual layer disc or a single layer disc; and a second type of bit indicates layer 1 of a dual layer disc.

Lee et al. disclose: in regard to claim 10, a data type identification information area comprising a sector information field (Figure 1, b31-b24) and a sector number field (b23-b0); in regard to claim 11, that said sector information field (b31-b24) comprises a sector format type field (b31), a tracking method field (b30), a reflectance field (b29), a reserve field (b28), an area type field (b27 & b26), a data type field (b25) and a number-of-layers field (b24); in regard to claim 12, that the sector format type information (b31) indicates a constant linear velocity (CLV) or zone constant linear velocity (ZCLV) as follows: a first type of bit (0) indicates CLV format type; and a second type of bit (1) indicates ZCLV format type, specified for rewritable discs; in regard to claim 13, that the tracking method information (b30) indicates pit tracking or groove tracking as follows: a first type of bit (0) indicates pit tracking; and a second type of bit (1) indicates groove tracking, specified for rewritable discs; in regard to claim 14, that the reflectance information (b29) indicates whether or not reflectance exceeds 40% as follows: a first type of bit (0) indicates reflectance is greater than 40%; and a second type of bit (1) indicates reflectance is less than or equal to 40%; in regard to claim 15, that the reserve information indicates a reserve bit (b28); in regard to claim 16, that the area type information (b27 & b26) indicates a data area, a lead-in area, a lead-out area, or a middle area for a read-only disc as follows: 00b indicates data area; 01b indicates lead-in area; 10b indicates lead-out area; and 11b indicates a middle area of a read-only disc (as shown); in regard to claim 17, that the data type information (b25) indicates read-only area, or the linking data as follows: a first type of bit (0)

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indicates a read-only area; and a second type of bit (1) indicates a linking area; and in regard to claim 18, that the layer number information (b24) indicates the number of layers in a single layer disc or a dual layer disc as follows: a first type of bit (0) indicates layer 0 of a dual layer disc or a single layer disc; and a second type of bit (1) indicates layer 1 of a dual layer disc.

It would have been obvious to one of ordinary skill in the art at the time of invention by the Applicant to have applied the teachings of Lee et al. to the recording medium of the admitted prior art, the motivation being to increase compatibility between recording media having different attributes (as indicated by the 0 and 1 bits of b31-b29, b25 & b24; and the 00, 01, 10 & 11 bits of b27 and b26).

Claims 1, 3-5, 8-10 & 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over 13. Ueki (JP 2000-137948) (please refer to the machine translation) in view of the admitted prior art.

In regard to claim 1, Ueki discloses a recording medium having sectors where data is recorded, wherein: each sector has a data identification area, in which information identifying the type of data recorded in the sector is recorded, and the data identification area indicates whether the data recorded in the sector is linking data (see paragraph 0062); and each sector has a main data area.

However, Ueki does not disclose: in regard to claim 1, that dummy data is recorded in the main area of the sector in which the information recorded in the data identification area indicates that the recorded data is linking data; in regard to claim 3, that 0 kilobytes (KB) are assigned to a dummy data area of the sector by linking after 32 kilobytes (KB) area assigned to a dummy data area of the sector by linking; in regard to claim 4, that 2 KB are assigned to a dummy data area

of the sector by linking; and in regard to claim 5, that 32 KB are assigned to a dummy data area of the sector by linking.

The admitted prior art discloses: in regard to claim 1, recording dummy data in the main area of the sector in which the information recorded in the data identification area indicates that the recorded data is linking data (see paragraph 0005, last four lines); in regard to claim 3, that 0 kilobytes (KB) are assigned to a dummy data area of the sector by linking after 32 kilobytes (KB) area assigned to a dummy data area of the sector by linking (Figure 1C); in regard to claim 4, that 2 KB are assigned to a dummy data area of the sector by linking (Figure 1A); and in regard to claim 5, that 32 KB are assigned to a dummy data area of the sector by linking (Figure 1B).

It would have been obvious to one of ordinary skill in the art at the time of invention by the Applicant to have applied the teachings of the admitted prior art to the recording medium of Ueki, the motivation being to improve correction of an ECC block (see paragraph 0005, last two lines).

Claims 8, 9 & 22 have limitations that are similar to those of claim 1; thus, they are rejected on the same basis.

In regard to claim 10, Ueki discloses that said data type identification information area comprises a sector information field and a sector number field (see paragraph 0062).

14. Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueki and the admitted prior art as applied to claim 10 above, and further in view of Yamamuro (US 5,805,547).

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For a description of Ueki and the admitted prior art, see the rejection above. However, Ueki and the admitted prior art do not disclose: in regard to claim 11, that said sector information field comprises a sector format type field, a tracking method field, a reflectance field, a reserve field, an area type field, a data type field and a number-of-layers field; in regard to claim 12, that the sector format type information indicates a constant linear velocity (CLV) or zone constant linear velocity (ZCLV) as follows: a first type of bit indicates CLV format type; and a second type of bit indicates ZCLV format type, specified for rewritable discs; in regard to claim 13, that the tracking method information indicates pit tracking or groove tracking as follows: a first type of bit indicates pit tracking; and a second type of bit indicates groove tracking, specified for rewritable discs; in regard to claim 14, that the reflectance information indicates whether or not reflectance exceeds 40% as follows: a first type of bit indicates reflectance is greater than 40%; and a second type of bit indicates reflectance is less than or equal to 40%; in regard to claim 15. that the reserve information indicates a reserve bit; and in regard to claim 18, that the layer number information indicates the number of layers in a single layer disc or a dual layer disc as follows: a first type of bit indicates layer 0 of a dual layer disc or a single layer disc; and a second type of bit indicates layer 1 of a dual layer disc.

Yamamuro discloses: in regard to claim 11, a sector information field comprising a sector format type field, a tracking method field, a reflectance field, a reserve field, an area type field, a data type field and a number-of-layers field (column 9, lines 26-32); in regard to claim 12, that the sector format type information indicates a constant linear velocity (CLV) or zone constant linear velocity (ZCLV) as follows: a first type of bit indicates CLV format type; and a second type of bit indicates ZCLV format type, specified for rewritable discs (column 9, lines 36-37); in

regard to claim 13, that the tracking method information indicates pit tracking or groove tracking as follows: a first type of bit indicates pit tracking; and a second type of bit indicates groove tracking, specified for rewritable discs (column 9, lines 37-38); in regard to claim 14, that the reflectance information indicates whether or not reflectance exceeds 40% as follows: a first type of bit indicates reflectance is greater than 40%; and a second type of bit indicates reflectance is less than or equal to 40% (column 9, lines 38-40); and in regard to claim 15, that the reserve information indicates a reserve bit (column 9, line 31).

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It would have been obvious to one of ordinary skill in the art at the time of invention by the Applicant to have applied the teachings of Yamamuro to the device of Ueki and the admitted prior art, the motivation being to enable continuous reproduction of data regardless of the presence of defects (column 1, lines 60-65).

15. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueki, the admitted prior art, and Yamamuro as applied to claim 11 above, and further in view of Lee et al. (EP 1052639 A2).

For a description of Ueki, the admitted prior art, and Yamamuro, see the rejection above. However, Ueki, the admitted prior art, and Yamamuro do not disclose: in regard to claim 16, that the area type information indicates a data area, a lead-in area, a lead-out area, or a middle area for a read-only disc as follows: 00b indicates data area; 01b indicates lead-in area; 10b indicates lead-out area; and 11b indicates a middle area of a read-only disc; in regard to claim 17, that the data type information indicates read-only area, or the linking data as follows: a first type of bit indicates a read-only area; and a second type of bit indicates a linking area; and in regard to claim 18, that the layer number information indicates the number of layers in a single layer disc

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or a dual layer disc as follows: a first type of bit indicates layer 0 of a dual layer disc or a single layer disc; and a second type of bit indicates layer 1 of a dual layer disc.

Lee et al. disclose: in regard to claim 16, that the area type information indicates a data area, a lead-in area, a lead-out area, or a middle area for a read-only disc as follows: 00b indicates data area; 01b indicates lead-in area; 10b indicates lead-out area; and 11b indicates a middle area of a read-only disc (paragraph 0077); in regard to claim 17, that the data type information indicates read-only area, or the linking data as follows: a first type of bit indicates a read-only area; and a second type of bit indicates a linking area (paragraph 0078); and in regard to claim 18, that the layer number information indicates the number of layers in a single layer disc or a dual layer disc as follows: a first type of bit indicates layer 0 of a dual layer disc or a single layer disc; and a second type of bit indicates layer 1 of a dual layer disc (paragraph 0079).

It would have been obvious to one of ordinary skill in the art at the time of invention by the Applicant to have applied the teachings of Lee et al. to the device of Ueki, the admitted prior art, and Yamamuro, the motivation being to reduce the time for recording linking data, thereby ensuring accurate real-time recording (see abstract).

16. Claims 1, 3-5, 8-18 & 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (EP 1067545 A2) in view of the admitted prior art.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

In regard to claim 1, Lee et al. disclose a recording medium having sectors where data is recorded (see Figure 1), wherein: each sector has a data identification area (b31-b0), in which

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information identifying the type of data recorded in the sector is recorded (note DATA TYPE), and the data identification area indicates whether the data recorded in the sector is linking data (as shown by 0 & 1 bits of b25); and each sector has a main data area.

However, Lee et al. do not disclose: in regard to claim 1, that dummy data is recorded in the main area of the sector in which the information recorded in the data identification area indicates that the recorded data is linking data; in regard to claim 3, that 0 kilobytes (KB) are assigned to a dummy data area of the sector by linking after 32 kilobytes (KB) area assigned to a dummy data area of the sector by linking; in regard to claim 4, that 2 KB are assigned to a dummy data area of the sector by linking; and in regard to claim 5, that 32 KB are assigned to a dummy data area of the sector by linking.

The admitted prior art discloses: in regard to claim 1, recording dummy data in the main area of the sector in which the information recorded in the data identification area indicates that the recorded data is linking data (see paragraph 0005, last four lines); in regard to claim 3, that 0 kilobytes (KB) are assigned to a dummy data area of the sector by linking after 32 kilobytes (KB) area assigned to a dummy data area of the sector by linking (Figure 1C); in regard to claim 4, that 2 KB are assigned to a dummy data area of the sector by linking (Figure 1A); and in regard to claim 5, that 32 KB are assigned to a dummy data area of the sector by linking (Figure 1B).

It would have been obvious to one of ordinary skill in the art at the time of invention by the Applicant to have applied the teachings of the admitted prior art to the recording medium of Lee et al., the motivation being to improve correction of an ECC block (see paragraph 0005, last two lines).

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Furthermore, Lee et al. disclose: in regard to claim 10, that said data type identification information area (Figure 1) comprises a sector information field (b31-b24) and a sector number field (b23-b0); in regard to claim 11, that said sector information field (b31-b24) comprises a sector format type field (b31), a tracking method field (b30), a reflectance field (b29), a reserve field (b28), an area type field (b27 & b26), a data type field (b25) and a number-of-layers field (b24); in regard to claim 12, that the sector format type information (b31) indicates a constant linear velocity (CLV) or zone constant linear velocity (ZCLV) as follows: a first type of bit (0) indicates CLV format type; and a second type of bit (1) indicates ZCLV format type, specified for rewritable discs; in regard to claim 13, that the tracking method information (b30) indicates pit tracking or groove tracking as follows: a first type of bit (0) indicates pit tracking; and a second type of bit (1) indicates groove tracking, specified for rewritable discs; in regard to claim 14, that the reflectance information (b29) indicates whether or not reflectance exceeds 40% as follows: a first type of bit (0) indicates reflectance is greater than 40%; and a second type of bit (1) indicates reflectance is less than or equal to 40%; in regard to claim 15, that the reserve information indicates a reserve bit (b28); in regard to claim 16, that the area type information (b27 & b26) indicates a data area, a lead-in area, a lead-out area, or a middle area for a read-only disc as follows: 00b indicates data area; 01b indicates lead-in area; 10b indicates lead-out area; and 11b indicates a middle area of a read-only disc (as shown); in regard to claim 17, that the data type information (b25) indicates read-only area, or the linking data as follows: a first type of bit (0) indicates a read-only area; and a second type of bit (1) indicates a linking area; and in regard to claim 18, that the layer number information (b24) indicates the number of layers in a

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single layer disc or a dual layer disc as follows: a first type of bit (0) indicates layer 0 of a dual layer disc or a single layer disc; and a second type of bit (1) indicates layer 1 of a dual layer disc.

Claims 8, 9 & 22 have limitations that are similar to those of claim 1; thus, they are rejected on the same basis.

Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to P. Agustin whose telephone number is 571-272-7567. The examiner can normally be reached on Monday-Friday 9:30-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A. L. Wellington can be reached on 571-272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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> Brian E. Miller Primary Examiner Art Unit 2627

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